

**What is claimed is:**

**[Claim 1]** 1. An improved front-end to body-side joint for an automotive vehicle, comprising:

an integral front end structure having a fender attachment portion and at least one hinge-reinforcement portion;  
a fender coupled to said fender attachment portion of said integral front end structure; and  
a pillar member of a vehicle body coupled to said at least one hinge-reinforcement portion for mounting a door thereon;  
wherein said integral front end structure is a master-locating component for positioning said fender and said door in a predetermined configuration.

**[Claim 2]** 2. The improved front-end to body-side joint as recited in claim 1 wherein said integral front end structure comprises at least one hydroformed tube.

**[Claim 3]** 3. The improved front-end to body-side joint as recited in claim 2 wherein said at least one hydroformed tube has a flattened end portion, said flattened end portion being said at least one hinge-reinforcement portion for attachment to said pillar member.

**[Claim 4]** 4. The improved front-end to body-side joint as recited in claim 2 wherein said at least one hydroformed tube includes a first hydroformed tube and a second hydroformed tube coupled to said first hydroformed tube, said first hydroformed tube and said second hydroformed tube respectively having a first flattened end portion and a second flattened end portion for attachment to said pillar member, said first flattened end portion and said second flattened end portion being spaced apart a predetermined distance.

**[Claim 5]** 5. The improved front-end to body-side joint as recited in claim 1 wherein said at least one hinge-reinforcement portion is coupled to an interior side of said pillar member.

**[Claim 6]** 6. The improved front-end to body-side joint as recited in claim 1 wherein said pillar member has at least one opening with said integral front end structure disposed therein.

**[Claim 7]** 7. The improved front-end to body-side joint as recited in claim 1 wherein said at least one hinge-reinforcement portion includes at least one of a hole, a weld nut, and an extrusion for attaching said pillar member to said at least one hinge-reinforcement portion.

**[Claim 8]** 8. The improved front-end to body-side joint as recited in claim 1 wherein said fender attachment portion includes at least one of a hole, a weld nut, and an extrusion for attaching said fender to said fender attachment portion.

**[Claim 9]** 9. An improved front-end to body-side joint for an automotive vehicle, comprising:

an integral front end structure having a fender attachment portion, a hood-hinge attachment portion, and at least one hinge-reinforcement portion; a fender coupled to said fender attachment portion of said integral front end structure; a hood hinge coupled to said hood-hinge attachment portion of said integral front end structure for attaching a hood thereto; and a pillar member of a vehicle body coupled to said at least one hinge-reinforcement portion for attaching a door thereto; wherein said integral front end structure is a master-locating component for positioning said fender, said hood, and said door in a predetermined configuration.

**[Claim 10]** 10. The improved front-end to body-side joint as recited in claim 9 wherein said integral front end structure comprises at least one hydroformed tube.

**[Claim 11]** 11. The improved front-end to body-side joint as recited in claim 10 wherein said at least one hydroformed tube has a flattened end portion, said flattened end portion being said at least one hinge-reinforcement portion for attachment to said pillar member.

**[Claim 12]** 12. The improved front-end to body-side joint as recited in claim 10 wherein said at least one hydroformed tube includes a first hydroformed tube and a second hydroformed tube coupled to said first hydroformed tube, said first hydroformed tube and said second hydroformed tube respectively having a first flattened end portion and a second flattened end portion for attachment to said pillar member, said first flattened end portion and said second flattened end portion being spaced apart a predetermined distance.

**[Claim 13]** 13. The improved front-end to body-side joint as recited in claim 9 wherein said at least one hinge-reinforcement portion is coupled to an interior side of said pillar member.

**[Claim 14]** 14. The improved front-end to body-side joint as recited in claim 9 wherein said pillar member has at least one opening with said integral front end structure disposed therein.

**[Claim 15]** 15. The improved front-end to body-side joint as recited in claim 9 wherein said at least one hinge-reinforcement portion includes at least one of a hole, a weld nut, and an extrusion for attaching said pillar member to said at least one hinge-reinforcement portion.

**[Claim 16]** 16. The improved front-end to body-side joint as recited in claim 9 wherein said fender attachment portion includes at least one of a hole, a weld nut, and an extrusion for attaching said fender to said fender attachment portion.

**[Claim 17]** 17. The improved front-end to body-side joint as recited in claim 9 wherein said hood-hinge attachment portion includes at least one of a hole, a weld nut, and an extrusion for attaching said hood hinge to said hood-hinge attachment portion.

**[Claim 18]** 18. An improved front-end to body-side joint for an automotive vehicle, comprising:

an integral front end structure having a fender attachment portion, a hood-hinge attachment portion, and at least one hinge-reinforcement portion;  
a fender coupled to said fender attachment portion of said integral front end structure;  
a hood hinge coupled to said hood-hinge attachment portion of said integral front end structure for attaching a hood thereto; and  
a pillar member of a vehicle body coupled to said at least one hinge-reinforcement portion for attaching a door thereto;  
wherein said integral front end structure is a master-locating component for positioning said fender, said hood, and said door in a predetermined configuration;  
wherein said integral front end structure has a construction for providing a continuous load path to said vehicle body.

**[Claim 19]** 19. The improved front-end to body-side joint as recited in claim 18 wherein said integral front end structure extends substantially from said vehicle body to a front end of the automotive vehicle.

**[Claim 20]** 20. The improved front-end to body-side joint as recited in claim 18 wherein said integral front end structure comprises at least one hydroformed tube.